



# Naval Construction Force/Seabee 1 & C

Only one answer sheet is included in the NRTC. Reproduce the required number of sheets you need or get answer sheets from your ESO or designated officer.

**DISTRIBUTION STATEMENT A:** Approved for public release; distribution is unlimited.

The public may request copies of this document by following the purchasing instruction on the inside cover.



0503LP4795100

**DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited**

The public may request copies of this document by writing to Superintendent of Documents, Government Printing Office, Washington, DC 20402-0001 or to the ASO/NPFD, Attention Cash Sales (Code 1013), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.

# NAVAL CONSTRUCTION FORCE/SEABEE 1 & C

## NAVEDTRA 82543

Prepared by the Naval Education and Training Program Management  
Support Activity, Pensacola, Florida

Congratulations! By enrolling in this course, you have demonstrated a desire to improve yourself and the Navy. Remember, however, this self-study course is only one part of the total Navy training program. Practical experience, schools, selected reading, and your desire to succeed are also necessary to successfully round out a fully meaningful training program. You have taken an important step in self-improvement. Keep up the good work.

### HOW TO COMPLETE THIS COURSE SUCCESSFULLY

ERRATA: If an errata comes with this course, make all indicated changes or corrections before you start any assignment. Do not change or correct the Training Manual (TRAMAN) or assignments in any other way.

TEXTBOOK ASSIGNMENTS: The TRAMAN for this course is *Naval Construction Force/Seabee 1 & C*, NAVEDTRA 12543. The TRAMAN pages that you are to study are listed at the beginning of each assignment. Study these pages carefully before attempting to answer the questions in the course. Pay close attention to tables and illustrations because they contain information that will help you understand the text. Read the learning objectives provided at the beginning of each chapter or topic in the text and/or preceding each set of questions in the course. Learning objectives state what you should be able to do after studying the material. Answering the questions correctly helps you accomplish the objectives.

BLACK DOT INFORMATION: Black dots (●) may be used in the text and correspondence course to emphasize important or supplemental information and to highlight instructions for answering certain questions. Read these black dot entries carefully; they will help you answer the questions and understand the material.

SELECTING YOUR ANSWERS: After studying the TRAMAN, you should be ready to answer the questions in the assignment. Read each question carefully, then select the BEST answer. Be sure to select your answer from the subject matter in the TRAMAN. You may refer freely to the TRAMAN and seek advice and information from others on problems that may arise in the course. However, the answers must be the result of your own work and decisions. You are prohibited from referring to or copying the answers of others and from giving answers to anyone else taking the same course. Failure to follow these rules can result in suspension from the course and disciplinary action.

SUBMITTING COMPLETED ANSWER SHEETS: Complete all assignments as quickly as possible to derive maximum benefit from the course. As a minimum, you must submit at least one assignment per month. This is a requirement established by the Chief of Naval Education and Training. Failure to meet this requirement could result in disenrollment from the course.

TYPES OF ANSWER SHEETS: If you are a U.S. Navy enlisted member on active duty or a drilling U.S. Naval Reserve enlisted member, you should use the answer sheet attached at the end of this course and follow the instructions in section A below. If you are an enlisted U.S. Naval Reserve member who is not attached to

a drilling unit or if you are an officer, a civilian, or a member of the U.S. Army, Air Force, Marine Corps, or Coast Guard, you should use the Automatic Data Processing (ADP) answer sheets included in the course package and follow the instructions in section B.

#### A. Manually Scored Answer Sheets

If you are a U.S. Navy enlisted member on active duty or attached to a U.S. Naval Reserve drilling unit, your course will be administered by your local command. You must use the answer sheet designed for manual scoring, NETPMSA form 1430/5, Stock Ordering Number 0502-LP-216-0100. You may get a supply of the forms from your Educational Services Officer (ESO), or you may reproduce the one in the back of this course booklet. DO NOT USE THIS FORM FOR COURSES ADMINISTERED BY NETPMSA.

Recording Information on the Manually Scored Answer Sheets: As you complete each assignment, submit the completed answer sheet to your ESO for grading. You may submit more than one answer sheet at a time. Remember, you must submit at least one assignment each month.

Grading: Your ESO will grade each answer sheet and notify you of any incorrect answers. The passing score for each assignment is 3.2. If you receive less than 3.2 on any assignment, the ESO will list the questions you answered incorrectly and give you an answer sheet marked "RESUBMIT." You must redo the assignment and complete the RESUBMIT answer sheet. The maximum score you can receive for a resubmitted assignment is 3.2.

Course Completion: After you have submitted all the answer sheets and have earned at least 3.2 on each assignment, your command should give you credit for this course by making the appropriate entry in your service record.

Student Questions: If you

have questions concerning the administration of this course, consult your ESO.

#### B. ADP Answer Sheets

If you are an enlisted U.S. Naval Reserve member who is not attached to a drilling reserve unit or if you are an officer, a civilian, or a member of the U.S. Army, Air Force, Marine Corps, or Coast Guard, use the ADP answer sheets provided in your course package. You should use one blank original ADP answer sheet for each assignment. Use only the original ADP answer sheet provided in your course package; NETPMSA will not accept reproductions.

Recording Information on the ADP Answer Sheets: Follow the "MARKING INSTRUCTIONS" on each answer sheet. Be sure that blocks 1, 2, and 3 are filled in correctly. This information is necessary for your course to be properly processed and for you to receive credit for your work.

As you work the course, be sure to mark your answers in the course booklet because your answer sheets will not be returned to you. When you have completed an assignment, transfer your answer from the course booklet to the answer sheet.

Mailing the Completed ADP Answer Sheets: Upon completing an assignment, mail the completed answer sheet to:

COMMANDING OFFICER  
NETPMSA CODE 036  
6490 SAUFLEY FIELD RD  
PENSACOLA FL 32559-5000

Use envelopes to mail your answer sheets. You must provide your own envelopes or request them from your ESO. You may enclose more than one answer sheet in a single envelope. Remember, regardless of how many answer sheets you submit at a time, NETPMSA should receive at least one assignment a month.

NOTE: DO NOT USE THE COURSE COMMENTS PAGE AS AN ENVELOPE FOR RETURNING ANSWER SHEETS OR OTHER COURSE MATERIALS.

Grading: NETPMSA will grade the answer sheets and notify you by letter concerning your grade for each assignment, your incorrect answers, and your final grade. The passing score for each assignment is 3.2. If you receive less than 3.2 on any assignment, you must rework the assignment. NETPMSA will enclose a new ADP answer sheet in the letter notifying you of the questions you answered incorrectly. You will be required to redo the assignment and resubmit the new answer sheet. The maximum score you can receive for a resubmitted assignment is 3.2.

Course Completion: When you complete the last assignment, fill out the "Course Completion" form in the back of the course and enclose it with your last answer sheet. NETPMSA will issue you a letter certifying that you satisfactorily completed the course. You should make sure that credit for the course is recorded in your service record. YOU MAY RETAIN THE TEXT.

NOTE: YOUR OFFICIAL COURSE COMPLETION DATE WILL BE THE DATE YOUR LAST ASSIGNMENT IS PROCESSED THROUGH THE NETPMSA ADP SYSTEM--NOT THE DATE YOU DEPOSIT THE LAST ASSIGNMENT IN THE MAIL. This is especially important if you are taking the course for Naval Reserve retirement credit. You must mail your answer sheets at least 60 days before your anniversary date. This will provide you with enough time for delays in the mail or reworking failed assignments. DO NOT MAIL YOUR ASSIGNMENTS TO THE NAVAL RESERVE PERSONNEL COMMAND (NRPC).

Student Questions: Refer questions concerning this course to NETPMSA by mail (use the address on page ii) or by telephone: DSN 922-1366 or commercial (904) 452-1366.

#### NAVAL RESERVE RETIREMENT CREDIT

If you are a member of the

Naval Reserve, you will receive retirement points if you are authorized to receive them under current directives governing retirement of Naval Reserve personnel. For the purpose of Naval Reserve retirement, this edition of the course is evaluated at 12 points. These points will be credited to you upon your satisfactory completion of the entire course.

NOTE: YOUR OFFICIAL COURSE COMPLETION DATE WILL BE THE DATE YOUR LAST ASSIGNMENT IS PROCESSED THROUGH THE NETPMSA ADP SYSTEM--NOT THE DATE YOU DEPOSIT THE LAST ASSIGNMENT IN THE MAIL. Refer to the Course Completion paragraph under section B. ADP Answer Sheets.

#### COURSE OBJECTIVES

In completing this NRTC, you will demonstrate a knowledge of the subject matter by correctly answering questions on the following subjects: administration; project and construction planning management; advanced base planning and embarkation; battalion turnover and tool management; NCF camp maintenance; environmental pollution control; contract Quality Assurance; and facilities maintenance management.

Naval courses may include several types of questions--multiple-choice, true-false, matching, etc. The questions are not grouped by type but by subject matter. They are presented in the same general sequence as the textbook material upon which they are based. This presentation is designed to preserve continuity of thought, permitting step-by-step development of ideas. Not all courses use all of the types of questions available. The student can readily identify the type of each question, and the action required, by inspection of the samples given below.

### MULTIPLE-CHOICE QUESTIONS

Each question contains several alternatives, one of which provides the best answer to the question. Select the best alternative, and blacken the appropriate box on the answer sheet.

#### SAMPLE

- s-1. Who was the first person appointed Secretary of Defense under the National Security Act of 1947?

1. George Marshall
2. James Forrestal
3. Chester Nimitz
4. William Halsey

Indicate in this way on the answer sheet

	1	2	3	4
	T	F		
s-1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> _ _ _

### TRUE-FALSE QUESTIONS

Mark each statement true or false as indicated below. If any part of the statement is false the statement is to be considered false. Make the decision, and blacken the appropriate box on the answer sheet.

#### SAMPLE

- s-2. All naval officers are authorized to correspond officially with any systems command of the Department of the Navy without their respective commanding officer's endorsement.

1. True
2. False

Indicate in this way on the answer sheet

	1	2	3	4
	T	F		
s-2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> _ _ _

### MATCHING QUESTIONS

Each set of questions consists of two columns, each listing words, phrases or sentences. The task is to select the item in column B which is the best match for the item in column A that is being considered. Items in column B may be used once, more than once, or not at all. Specific instructions are given with each set of questions. Select the numbers identifying the answers and blacken the appropriate boxes on the answer sheet.

#### SAMPLE

In questions s-3 through s-6, match the name of the shipboard officer in column A by selecting from column B the name of the department in which the officer functions. Some responses may be used once, more than once, or not at all.

#### A. OFFICER

#### B. DEPARTMENT

Indicate in this way on the answer sheet

- |      |                          |    |                        |
|------|--------------------------|----|------------------------|
| s-3. | Damage Control Assistant | 1. | Operations Department  |
| S4.  | CIC Officer              | 2. | Engineering Department |
| s-5. | Disbursing Officer       | 3. | Supply Department      |
| s-6. | Communications Officer   |    |                        |

	1	2	3	4
	T	F		
s-3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> _ _ _
s-4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> _ _ _
s-5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> _ _ _
s-6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> _ _ _

## ASSIGNMENT 1

Textbook Assignment: "Administration," chapter 1, pages 1-1 through 1-17, and "Project Planning and Management," chapter 2, pages 2-1 through 2-12.

- 1-1. The purpose of the Personnel Readiness Capability Program is to provide accurate, up-to-date personnel information. This tool allows the NCF to accomplish its mission in which of the following ways?
1. By scheduling day-to-day work assignments for individual crew members
  2. By combining the information relevant to project planning
  3. By determining unit readiness through timely personnel information
  4. By scheduling project functions into a single master plan

IN ANSWERING QUESTIONS 1-2 THROUGH 1-6, REFER TO FIGURE 1-A.

CATEGORIES OF SKILLS	
A.	Individual general
B.	Individual rating
C.	Military
D.	Crew experience

Figure 1-A

- 1-2. What category of skills is related to two or more ratings and is primarily nonmanipulative?
1. A
  2. B
  3. C
  4. D
- 1-3. You can acquire what type of skills as a result of working with others on a particular project?
1. A
  2. B
  3. C
  4. D
- 1-4. What skills can you acquire as a result of training for combat?
1. A
  2. B
  3. C
  4. D

- 1-5. By working on a boiler installation with other personnel, you acquire skills in what category?

1. A
2. B
3. C
4. D

- 1-6. A technical skill specifically related to one of the construction ratings falls in what category?

1. A
2. B
3. C
4. D

- 1-7. Which of the following management tools should you use to collect crew member skill data?

1. Volume I, PRCP Skill Definitions
2. PRCP Standards and Guides
3. Matrix Numbers 1 and 2
4. Section II, Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards

- 1-8. When collecting personnel data concerning an individual's skills, you should send the information to the unit's PRCP manager in what form?

1. Memorandum
2. Computer disk
3. Punched card
4. PRCP Skill Update Record

- 1-9. What two types of interviews are conducted by a PRCP interviewer?

1. Standard and specific
2. Individual rating and skill
3. Other and individual rating
4. Specific and other

- 1-10. When preparing for an individual rating skill interview, which of the following is the most important?
1. Review the appropriate section of the Occupational Standards Manual
  2. Learn as much as you can about the skill and the tasks explained in the interviewing guides
  3. Prepare the interviewee's service record
  4. Prepare the interviewee's checkoff sheet
- 1-11. Refer to figure 1-3 in the textbook. To qualify for Skill Level I, a craftsman must demonstrate which of the following skills?
1. Select, care, and use proper hand tools for various jobs
  2. Install plumbing systems for water, steam, air, and fuel
  3. Both 1 and 2 above
  4. Designate the spacing of pipe supports for all types of piping systems
- 1-12. Depending upon the complexity and number of tasks in a skill definition, there can be a maximum of how many levels?
1. Five
  2. Six
  3. Three
  4. Four
- 1-13. Refer to figure 1-4 in the textbook. Under task element .02b, what tasks are assigned?
1. A and E only
  2. D and E only
  3. A, B, D, and E
  4. A, B, F, and G
- 1-14. Whether a person does or does not have a certain skill is decided by what individual?
1. PRCP coordinator
  2. PRCP interviewer
  3. Training officer
  4. Company commander
- 1-15. The priorities, patterns, and tempo of a battalion training program are usually established by what authority?
1. The commanding officer
  2. The Naval Training Command
  3. The Chief of Naval Operations
  4. The COMSECOND/COMTHIRDNCB staff
- 1-16. The executive officer supervises and coordinates the work, exercises, training, and education of personnel in the command. He/she does this in what capacity?
1. Training officer
  2. Operations officer
  3. Chief staff officer
  4. Chief of training
- 1-17. Training conducted in an amphibious construction battalion is exactly the same as that conducted in a mobile construction battalion.
1. True
  2. False
- 1-18. The battalion training plan and organization must not interfere with construction schedules as set forth by the deployment operation order.
1. True
  2. False
- 1-19. In home port, training programs become the primary mission. Each NMCB is expected to spend what percentage of available man-days in training while in home port?
1. 55%
  2. 65%
  3. 75%
  4. 85%
- 1-20. When selecting individuals best suited to attend a Navy C-1 advance school, you should check which of the following data?
1. Personnel advancement requirements
  2. Battalion assignments
  3. Time in battalion
  4. Service records
- 1-21. What is the purpose of on-the-job training in a Seabee organization?
1. To indoctrinate new personnel
  2. To assist supervisors in developing management skills
  3. To help individuals acquire the necessary knowledge, skills, and habits to do a specific job
  4. To instill each person with interest and enthusiasm for the work to be done

- 1-22. Before setting up an on-the-job training program, you should perform which of the following actions first?
1. Write a set of lesson plans
  2. Develop task analysis statements
  3. Determine the type of training required
  4. Determine specific training objectives
- 1-23. After an on-the-job training program has been implemented, you should maintain program follow-up in which of the following ways?
1. By keeping an individual's training record current
  2. By ensuring the project does not lag
  3. By ensuring newly developed skills are used properly
  4. Each of the above
- 1-24. When used properly, what method is most effective for training workers on the job?
1. Group
  2. Academic
  3. Self-study
  4. Coach-pupil
- 1-25. In on-the-job training, the term "group instruction" most closely relates to what other type of instruction?
1. Academic
  2. Self-study
  3. Classroom
  4. Technical
- 1-26. What type of instruction explains regulations, indoctrinates new people, and identifies the what, when, where, how, and why of a situation?
1. Formal
  2. Immediate
  3. Piecemeal
  4. Group instruction
- 1-27. Interviews between the trainee and the trainer in a developmental on-the-job training program will NOT accomplish which of the following objectives?
1. Determining training needs
  2. Assessing progress of the trainee
  3. Resolving trainee questions
  4. Evaluating performance tests
- 1-28. Taking which of the following steps may help you to plan and carry out a successful training program?
1. Using correct methods to ensure learning
  2. Measuring achievement at regular intervals
  3. Recording results
  4. Each of the above
- 1-29. Which, if any, of the following methods would be effective in evaluating the success of a training program?
1. Testing the trainee
  2. Spot checking performance at the jobsite
  3. Checking the work schedule backlog
  4. None of the above
- 1-30. The success of any project depends a great deal upon attention to detail and what other factor?
1. Experience
  2. Care taken in planning
  3. Mode of transportation
  4. Distance to jobsite
- 1-31. As the petty officer or chief in charge of a crew, you are responsible for crew member time management. When is the best time to confirm plans for the next workday?
1. At the beginning of each day
  2. At the beginning of each week
  3. At the close of each day
  4. At the close of each week
- 1-32. For you to properly plan your project you must be able to organize. What is the first step in organizing this project?
1. Plan the job sequences
  2. Plan for the equipment
  3. Schedule the material
  4. Schedule the tools
- 1-33. Since safety and production go hand in hand, the only efficient way to do any thing is the safe way. Which of the following is the best way to have a safe project?
1. Post safety slogans on all bulletin boards
  2. Read the Safety Line each week
  3. Visit with the battalion safety chief daily
  4. Teach, observe, and plan with safety in mind

- 1-34. When making work assignments, it is best to rotate the jobs among the crew. What is the main advantage of rotating work assignments?
1. It identifies the less skilled crew members
  2. It prevents specialization of work
  3. It confuses the crew
  4. It lengthens a short project
- 1-35. What is/are the advantage(s) to assigning more crews or crew members to a project that has a unique phase of the rate?
1. Enhances direct labor
  2. Employs all crews
  3. Speeds project completion
  4. Promotes teamwork, new skills, and versatility
- 1-36. The Enlisted Performance Evaluation Report is the most significant personnel management tool in the enlisted service record. It is designed primarily for what use?
1. Making advancement and assignment decisions
  2. Making reenlistment decisions
  3. Making retention decisions
  4. Making special educational decisions
- 1-37. Which of the following instructions shows you what goes in each block of an Enlisted Performance Evaluation Report?
1. BUPERSINST 1430.16
  2. OPNAVINST 5102.1
  3. OPNAVINST 6110.1
  4. NAVMILPERSCOMINST 1616.1
- 1-38. To prepare a rough evaluation report properly, you should have the individual submit what input form?
1. NAVPERS 1616/21
  2. NAVPERS 1616/24
  3. NAVPERS 18068
  4. NAVPERS 18665
- 1-39. CPA, CPM, and PERT are techniques used in the analysis of a flow of events and activities of a construction project. What is the generic title covering these construction management techniques?
1. Network analysis
  2. Planning and estimating
  3. Flow charting
  4. Project analysis
- 1-40. Construction management in the Seabees is based on the critical path method. This method has which of the following major advantages?
1. Mobility
  2. Training
  3. Versatility
  4. Inexpensive
- 1-41. When developing construction activities, they should be less than how many days in duration?
1. 5
  2. 10
  3. 15
  4. 20
- 1-42. In an NMCB, what individual has functional authority over construction projects?
1. A3
  2. B3
  3. H3
  4. S3
- 1-43. All construction work done by the battalion is according to the construction quality control program. This construction work is outlined in which of the following manuals?
1. P-908
  2. P-445
  3. P-404
  4. P-307
- 1-44. The prime contractor and subcontractors are assigned by the Operations department. The prime contractor of a project has which of the following responsibilities?
1. Safety on the project
  2. Quality of the project
  3. Timeliness of the construction effort
  4. All of the above
- 1-45. How many folders are there in a project package?
1. Seven
  2. Eight
  3. Nine
  4. Ten
- 1-46. What folder in a project package contains the project quality control plan?
1. #5
  2. #6
  3. #7
  4. #8

- 1-47. What folder in a project package contains the project specifications?
1. #6
  2. #7
  3. #8
  4. #9
- 1-48. What folder in a project package contains the level II precedence diagram?
1. #5
  2. #6
  3. #3
  4. #4
- 1-49. Project planning milestones are used to help you in the planning of your project and the development of your project package. What department assigns these milestones?
1. P & E
  2. Operations
  3. Planning
  4. Material
- 1-50. When estimating a project, the crew leader is responsible for ensuring all required resources are identified. Where do you list these resources and any action required to track them?
1. CAS sheets
  2. Master sheets
  3. Duration sheets
  4. Production sheets
- 1-51. When planning a project in the NCF, you should not exceed what number of master activities?
1. 5
  2. 10
  3. 15
  4. 20
- 1-52. Master activities can be broken into at least what number of construction activities?
1. 5
  2. 10
  3. 15
  4. 20
- 1-53. A work element checklist is a good guide for developing construction activities. It can be found in what book?
1. NAVFAC P-908
  2. NAVFAC P-404
  3. NAVFAC P-307
  4. NAVFAC P-405
- 1-54. A typical Naval Mobile Construction Battalion project contains how many construction activities?
1. Between 25 and 80
  2. Between 15 and 70
  3. Between 25 and 60
  4. Between 15 and 50
- 1-55. Construction activity numbers are usually four digits. What do the first two digits identify?
1. Construction activity
  2. Master activity
  3. Specific project
  4. Specific element
- 1-56. You need to know how to calculate man-days and duration for each construction activity. What manual is the primary reference for Seabee man-day estimates?
1. NAVFAC P-401
  2. NAVFAC P-405
  3. NAVFAC P-307
  4. NAVFAC P-305
- 1-57. According to NAVFAC P-405, regardless of the length of the workday, tasking, estimating, and reporting of each man-hour are always figured using what number of hours?
1. 6
  2. 8
  3. 10
  4. 12
- 1-58. When figuring the production efficiency factor for a project, you must assign a production factor for each element of the job. What is considered the average production factor?
1. 60
  2. 62
  3. 67
  4. 70
- 1-59. For each particular construction activity, the delay factor is only used in what calculations?
1. Man-day estimate
  2. Activity duration
  3. Man-day equivalent
  4. Project duration

1-60. Availability factors take into account that Seabees assigned as direct labor are not available 100 percent of the time. What is the availability factor for the main body?

1. 0.60
2. 0.65
3. 0.70
4. 0.75